

Petition for Waiver of OFDM UWB Measurement Procedures
ET Docket No. 04-352
DA 04-2793

Comments of Hewlett-Packard Company

The Hewlett-Packard Company submits this document to the Federal Communications Commission Public Notice (DA 04-2973) requesting comments on the Multi-Band OFDM Alliance Special Interest Group ("MBOA-SIG") waiver request that was submitted on August 26, 2004 to the Commission. The waiver request pertains to the procedures and policies used to measure emissions for ultra-wideband devices. Employees from Hewlett-Packard have been following the progress of the Multi-Band OFDM specification within the IEEE and within the MBOA-SIG and would like to express support of this waiver.

The Hewlett Packard Corporation Inc. is a global manufacturer and supplier of a wide breadth of products that cover the computing industry, digital entertainment, digital imaging and printing, consumer electronics, Information Technology services, Internet services, just to mention a few. We believe the emergence of UWB will be very beneficial to a large portion of our product portfolio and we would like to have initial UWB technologies be as robust as possible with state of the art in wireless communications. We believe that the MB-OFDM specification has characteristics that give it operational advantages as well as other characteristics which will allow it to have lower out of band emissions.

Currently, the Commission requires that MB-OFDM systems be measured with band sequencing or pulse "gating" procedures – procedures that the Office of Engineering and Technology has indicated were developed with pulse-based UWB systems in mind. These measurement procedures require pulse repetition intervals to be compared to the length of some quiescent period or "gating" interval. However, there is no quiescent period in an MB-OFDM system because the QPSK-modulated OFDM "pulse train" in each band is never gated on or off. As such, these pulse "gating" testing procedures cannot apply effectively to MB-OFDM systems. Clearly, a clarification or waiver of the current test procedures is needed.

The FCC Office of Engineering and Technology has indicated that any such clarification or waiver would depend on whether MB-OFDM systems could be shown to cause no greater threat of harmful interference to licensed services than pulsed UWB systems. To address this concern, MBOA-SIG conducted simulated and actual interference testing with representative samples of OFDM and pulsed based UWB devices to determine their comparative interference potential. Hewlett Packard has reviewed the results and believes the tests conclusively demonstrate that MB-OFDM systems pose no greater threat of harmful interference than pulsed based UWB systems permitted under the FCC's rules.

Accordingly, MBOA-SIG seeks a waiver of the FCC's pulse "gating" measurement procedures to the extent that these procedures apply to MB-OFDM systems and seeks to allow MB-OFDM systems to be tested for average emissions under normal operating conditions. Hewlett Packard Corporation Inc. believes this waiver is clearly necessary to permit MB-OFDM technology to be integrated into products operating under the full capability as defined in the MB-OFDM specification. We believe having the ability to ship products with the most robust link possible will have the greatest benefit to the customers of UWB based products.

Respectfully submitted,

HEWLETT-PACKARD COMPANY

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